Wireframe

Concrete Compressive Strength Prediction (Machine Learning)

By

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Overview

The quality of concrete is determined by its compressive strength, which is measured using a conventional crushing test on a concrete cylinder. The strength of the concrete is also a vital aspect in achieving the requisite longevity. It will take 28 days to test strength, which is a long period. Thus this project aims to predict concrete strength using machine learning models.

This document describes the wireframe for the schematic design of web interface created for the machine learning model. We will also discuss how web interface will be connected to the machine learning model.

Web interface wireframe

A wireframe is a two dimensional illustration of a page's interface that specifically focuses on space allocation and prioritization of contents, functionalities available and intended behaviors.

The interface we have created consists of only a single page through which the user interacts with machine learning model. Below is the model for this project.

Component functions

Below are the roles that each component in wireframe performs.

1. User Input: Takes the user input from the user and prepares for transmission to ML API.

2. Action button: When clicked, it sends user input to Rest API as a POST request.
3. Result display: The component is responsible for displaying the result received from POST request to ML model.

User interaction

Previously we saw what function each component inside the wireframe performs. Now we will see how these components work together to facilitate communication between the user and the model.

The sequence in which communication happens:

1. User enters the attribute values inside the input box.
2. User clicks the Predict button and sends a POST request to API.
3. The displayer receives the output from the API and updates the result.